United States
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Patents

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION

Serial Number:	10/507,323
Group Art Unit:	3663
Confirmation No.:	2804
Examiner:	MONDT, Johannes P.
Title:	APPARATUS AND METHOD FOR FUSION REACTOR
Filing Date:	September 10, 2004
Inventors:	LABERGE, Michel
Agent's ref:	15044

Aug 2, 2006

U.S. Commissioner of Patents and Trademarks

U.S. Patent and Trademark Office

P.O. Box 1450

Alexandria, VA 22313-1450

United States

Dear Sir:

RESPONSE

This is a response to the Office action dated June 6, 2006, the one month extension deadline for responding to which is August 6, 2006.

Restriction Requirement

The Examiner has requested restriction of the application to one of the following inventions:

Group I: Claims 58-74 and 87

Group II: Claims 75-86

In response to the Examiner's requisition under PCT rule 13, Applicant elects, with traverse, the claims in the Examiner's Group I (i.e. claims 58-74 and 87).

Election Requirement

The Examiner further alleges that the present application contains claims directed to the following patentably distinct species of the claimed invention:

Species A: "fusionable material in gaseous bubble"

Species B: "fusionable material in microballoon"

The Examiner has indicated that the Applicant is required to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

In response Applicant elects Species B, with traverse. Claims 58 – 66, 69 – 74, and 87 in the elected Group I claims read on the elected species.

In accordance with 37 CFR 1.143, Applicant respectfully requests that the Examiner reconsider and modify the restriction/election requirement for the following reasons.

1. Improper basis for restriction

Applicant does not clearly understand the Examiner's basis for the restriction request. The Examiner has requested restriction under both PCT rule 13 and 35 U.S.C. 121. Applicant submits that since the application was filed under 35 U.S.C. 371, the application is subject to unity of invention requirements under PCT rule 13, but is not subject to restriction practice under 35 U.S.C. 121. Accordingly, Applicant respectfully requests that the Examiner withdraw the restriction request under 35 U.S.C. 121.

2. *Improper unity of invention allegation under PCT Rule 13*

The Examiner alleges that there is lack of unity between because there is no "special technical feature" common to the claims in the Examiner's Group I and Group II.

Applicant respectfully disagrees.

Applicant's claim 58, in Group I recites:

58. A method for initiating nuclear fusion in a fusionable material, the method comprising:

introducing the fusionable material into a liquid filled vessel;

determining a location of the fusionable material in said liquid filled vessel; and

directing an acoustic pulse towards the fusionable material at said location such that said acoustic pulse converges on the fusionable material and sufficiently increases the temperature and pressure thereof to initiate nuclear fusion in the fusionable material.

Applicant's claim 75, in Group II recites:

75. A nuclear fusion reactor apparatus comprising:

a vessel for containing a liquid;

an aperture in said vessel for introducing fusionable material into said vessel;

a tracking system for determining a location of the fusionable material in said vessel; and

a pulse generator operable to generate and direct an acoustic pulse toward said location of the fusionable material such that said acoustic pulse converges on the fusionable material and sufficiently increases the temperature and pressure thereof to initiate nuclear fusion in the fusionable material.

The unity of invention requirements are set forth in MPEP 1893.03(d):

> "A group of inventions is considered linked to form a single general inventive concept where there is a technical relationship among the inventions that involves at least one common or corresponding special technical feature. The expression special technical features is defined as meaning those technical features that define the contribution which each claimed invention, considered as a whole, makes over the prior art."

Applicant's claims 58 and 75 are linked to form a single inventive concept due to recitation in the claims of the corresponding technical feature of "determining a location of the fusionable material in said [liquid filled]vessel". Applicant's claims are linked in that in each case a location of the fusionable material is determined, toward which location an acoustic pulse is directed.

Furthermore, Applicant draws the Examiner's attention to the similarity of the language, as indicated by the underlined passages in claims 58 and 75 as reproduced above. Applicant's claim 75 generally recites structural elements that perform generally the same functional steps as recited in claim 58.

The Examiner alleges that the process as claimed can be practiced by another materially different apparatus, and that the apparatus as claimed can be used to practice another materially different process.

Applicant draws the Examiner's attention to MPEP 1893.03(d) which states:

> "An apparatus or means is specifically designed for carrying out the process when the apparatus or means is suitable for carrying out the process with the technical relationship being present between the claimed apparatus or means and the claimed process. The expression specifically designed does not imply that the apparatus or means could not be used for carrying out another process, nor does it imply that the process could not be carried out using an alternative apparatus or means."

Accordingly, Applicant submits that as stated in MPEP, whether or not the process can be practiced by another materially different apparatus or the apparatus can be used to practice another materially different process is not relevant to unity of invention determinations under PCT Rule 13.

Accordingly, Applicant submits that claims 58 and 75 share a common special technical feature and thus do possess unity of invention. Claims 59 – 74 and 87, and claims 76 – 86 are all ultimately dependent on one of claims 58 and 75, and thus share the common special technical feature. Consequently, Applicant submits that the Examiner's restriction request is not proper and should be withdrawn.

3. Failure to specify a valid reason for the species election requisition

On page 3 of the office action the Examiner states that "The species are independent or distinct because, claimed alternatively, fusionable material in a microballoon is located outside, in a gaseous bubble trapped inside, said liquid in said liquid filled vessel".

The Applicant does not understand the Examiner's statement setting out his reasons for considering the two species independent and distinct.

Furthermore, Applicant submits that PCT Rule 13.4 expressly allows for a reasonable number of dependent claims to be presented:

> "Subject to Rule 13.1, it shall be permitted to include in the same international application a reasonable number of dependent claims, claiming specific forms of the invention claimed in an independent claim, even where the features of any dependent claim could be considered as constituting in themselves an invention."

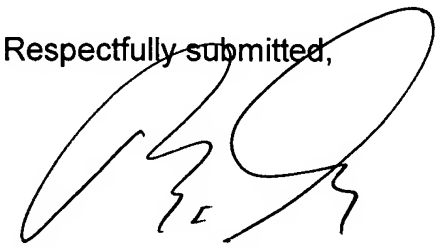
Accordingly Applicant submits that two species, as defined by the Examiner, represent a reasonable number of dependent claims, and thus should not be subject to an election of species request. Applicant therefore respectfully requests that the Examiner's election of species request should be withdrawn.

Applicant respectfully requests further favorable consideration of the application.

Applicant herewith petitions for an automatic extension of time for one month, from July 6, 2006 to August 6, 2006, for responding to the outstanding Office Action dated June 6, 2006.

A check in the amount of $60.00 is attached for the extension fee pursuant to 37 C.F.R. Section 1.17(a). Small Entity status has already been established.

Respectfully submitted,



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